

ITEM 622 CONCRETE BARRIER

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622.01 Description. This work consists of furnishing and placing portland cement concrete barrier on the accepted and prepared subgrade, subbase course, or existing pavement. This item also consists of furnishing, placing, maintaining, and removing portable concrete barrier.

622.02 Materials. Furnish materials conforming to:

Concrete, Class C	499
Reinforcing steel and wire fabric	509.02
Forms	515.14
Preformed filler	705.03
Curing materials	705.05, 705.06, or 705.07 Type 2
Precast concrete	706.13
Dowel bars	709.01 thru 709.05
Steel.....	711.01

622.03 Placing Concrete. Construct concrete barrier by cast-in-place, precast, or slip-form methods. For slip-form construction, conform to 609.04.C.

622.04 Portable Concrete Barrier. Furnish individual sections not less than 10 feet (3 m) long. If intending to use the barrier at one location on the project, the Contractor may slip-form barriers in place without joints, or with grooved or sawed joints to facilitate removal. Install barrier reflectors (triple stacked) as per ODOT Standard Construction Drawing MT-101.70, using the alternative delineation method. As directed by the Engineer, repair or replace barrier sections damaged during handling or by traffic, for the life of the project.

622.05 Joints. Construct joints for cast-in-place or slip-formed barrier of the type and dimensions and at the locations specified.

A. Contraction Joints. The Contractor may construct unsealed contraction joints by either sawing, using metal inserts inside the forms, using a grooving tool, or using full-width 3/4-inch (19 mm) thick preformed joint filler conforming to 705.03. Make joints that are sawed, tooled, or formed by inserts a minimum of 1/8 inch (3 mm) wide and 3 inches (75 mm) deep. Saw joints as soon as curing allows sawing to the required depth with minimal spalling of the concrete surface.

B. Expansion Joints. Use 3/4-inch (19 mm) preformed joint filler conforming to 705.03 to construct expansion joints at the centerline of and around each bridge pier column and on either side of each sign support foundation.

622.06

C. Horizontal Construction Joints. If and as shown on the plans, the Contractor may place horizontal construction joints.

622.06 Finish. Immediately following removal of fixed forms or slip-form construction, check the surface of the barrier with a straightedge and correct all irregularities of more than 1/4 inch in 10 feet (6 mm in 3 m). Finish and make corrections to the barrier surface according to 511.18.

622.07 Curing. Cure concrete according to 511.17, Method B and the following additional requirements. Apply the curing compound using an approved mechanical sprayer equipped with a shield to protect the spray from wind. For small areas, the Engineer will allow the use of other acceptable methods.

Do not apply any load or conduct any work that will damage newly placed concrete. Allow a minimum of 36 hours of cure time to elapse on any concrete placed first at a horizontal construction joint. The Contractor may cure precast sections according to 515.15. With the Engineer’s approval, the Contractor may also use radiant heated forms for curing.

The Contractor may use 511.17, Method A for curing of short sections of barrier (leave-outs); however, before the curing is completed for any leave-outs, apply material conforming to 705.07, Type 2 at the normal rate specified in 511.17, Method B.

The Contractor may cure horizontal construction joints between the foundation and the upper portion of the barrier, and between portions of the upper barrier placed separately according to 511.17, Method A or B. Do not remove the membrane before placing the next portion of the concrete barrier.

622.08 Method of Measurement. The City will measure Concrete Barrier by the number of feet (meters) along the centerline of the top of the barrier, including all transitions, end terminals, and bridge pier sections as specified, complete in place.

The City will measure Portable Concrete Barrier and Portable Concrete Barrier, Bridge Mounted by the number of feet (meters) for each application of the barrier placed according to the plans. The City will measure each re-use of barrier sections at a different location required by the plans separately.

The City will not measure repaired or replacement barrier sections damaged during handling or by traffic.

622.09 Basis of Payment. The cost of all inserts, sleeves, fittings, connectors, reinforcement, dowels, preformed filler, excavation, and backfill is incidental to these items.

The City will pay for accepted quantities at the contract prices as follows:

Item	Unit	Description
622	Foot (Meter)	Concrete Barrier, Type ____
622	Foot (Meter)	Portable Concrete Barrier, ____" (____ mm)
622	Foot (Meter)	Portable Concrete Barrier, ____" (____ mm) Bridge Mounted